Guadalupe River watershed…a long time ago (photo courtesy of Aquarena Springs)

The Texas General Land Office

George P. Bush, Commissioner

Jason Pinchback

Manager, Coastal Resources

This presentation is based upon professional research and analysis within the scope of Texas General Land Office statutory responsibilities and priorities but, unless specifically noted, does not necessarily reflect official positions or decisions.

WHISKEY AND WATER
WITH
CARROTS AND STICKS

A Texas (non-regulatory) recipe to control coastal NPS pollution

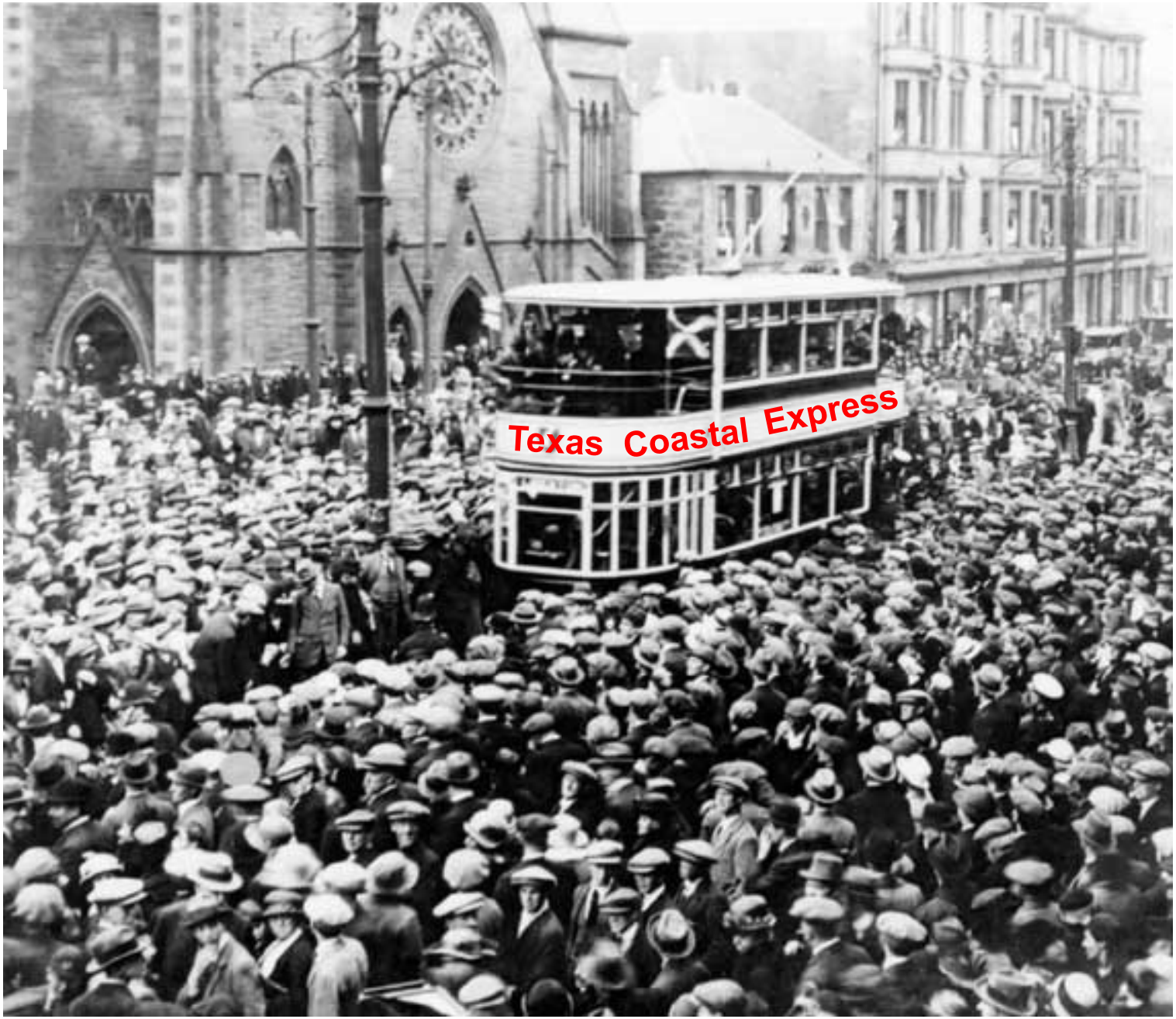
Texas General Land Office on the coast

Lead Agency Responsible for:

- Revenue for Permanent School Fund
- Coastal Oil Spill Response
- Disaster Recovery
- Manage state owned lands
- Manage coastal resources

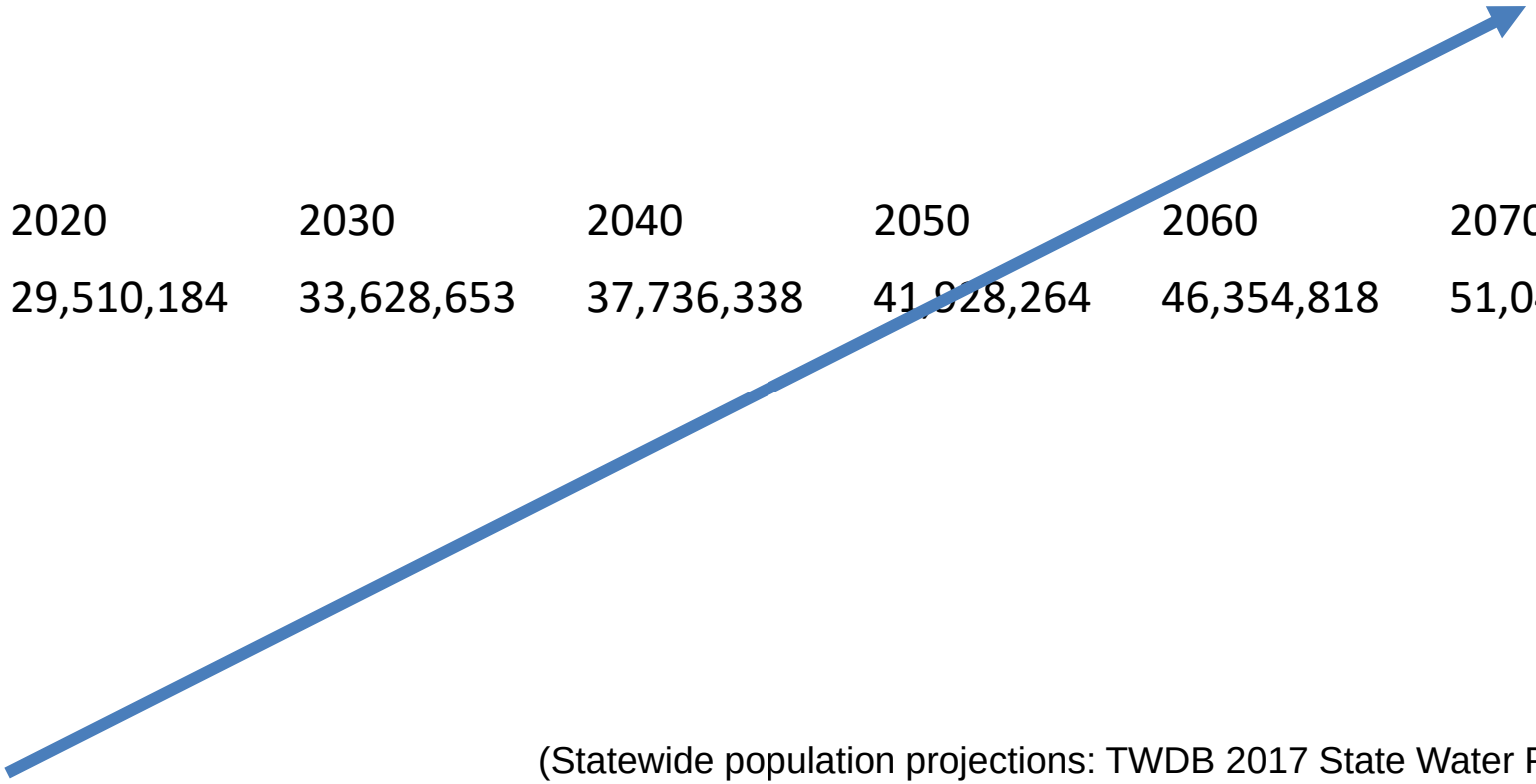
- 367 miles of Gulf shoreline
- Over 3,300 miles of bay shoreline
- 18 coastal counties (26% of State's pop.)

This bus represents the Texas Coast…
…and more folks are on the way!



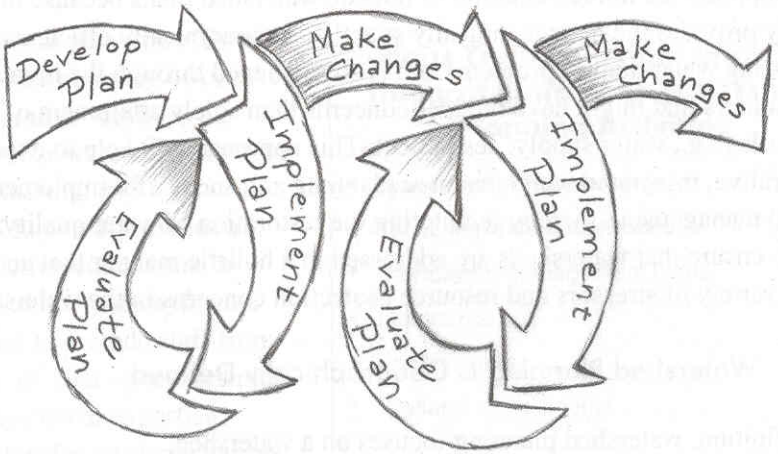
A significant change agent that impacts water quality is POPULATION INCREASE and the resulting land use change.

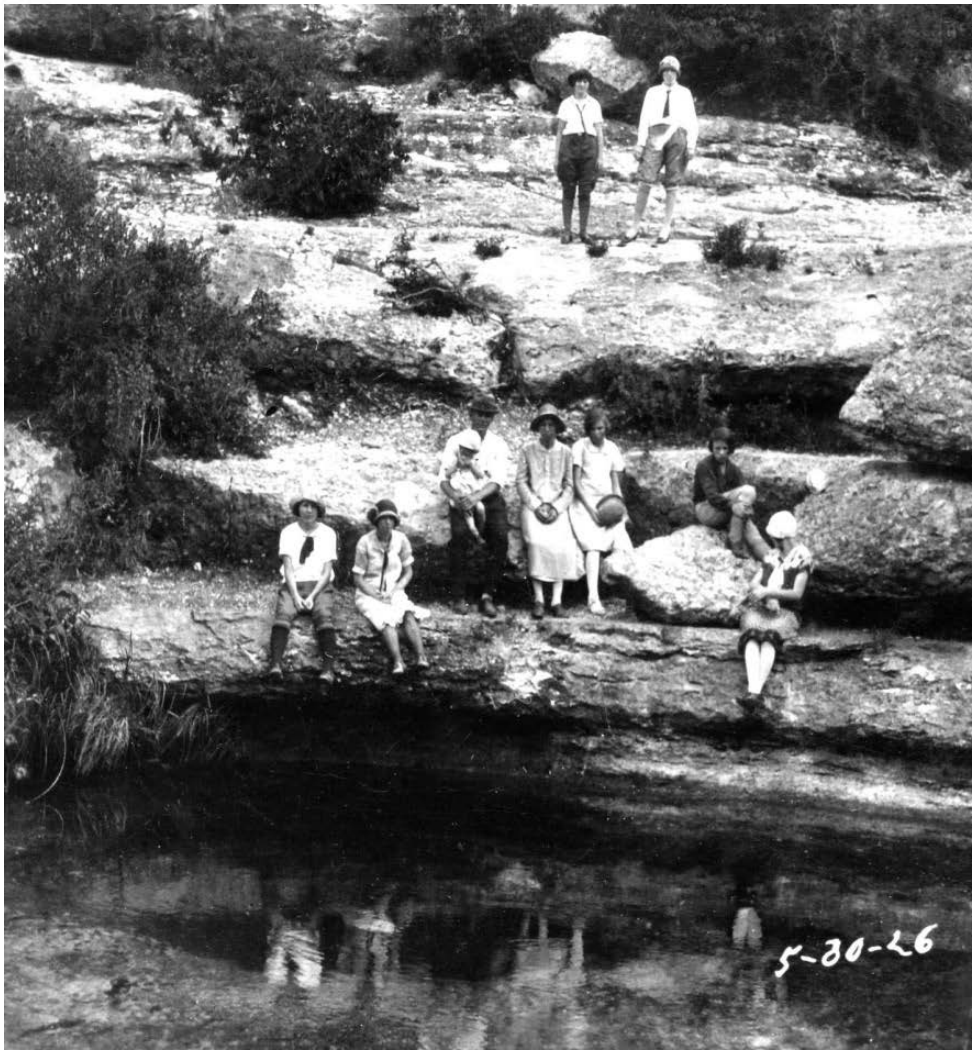
2020	2030	2040	2050	2060	2070
29,510,184	33,628,653	37,736,338	41,928,264	46,354,818	51,040,173



(Statewide population projections: TWDB 2017 State Water Plan)

Adapting to change…





(Photo courtesy of Wimberley Valley Watershed Association)
(Planning figure: U.S. EPA Handbook for Developing Watershed Plans to Restore and Protect Our Waters)

Nueces County 1930s

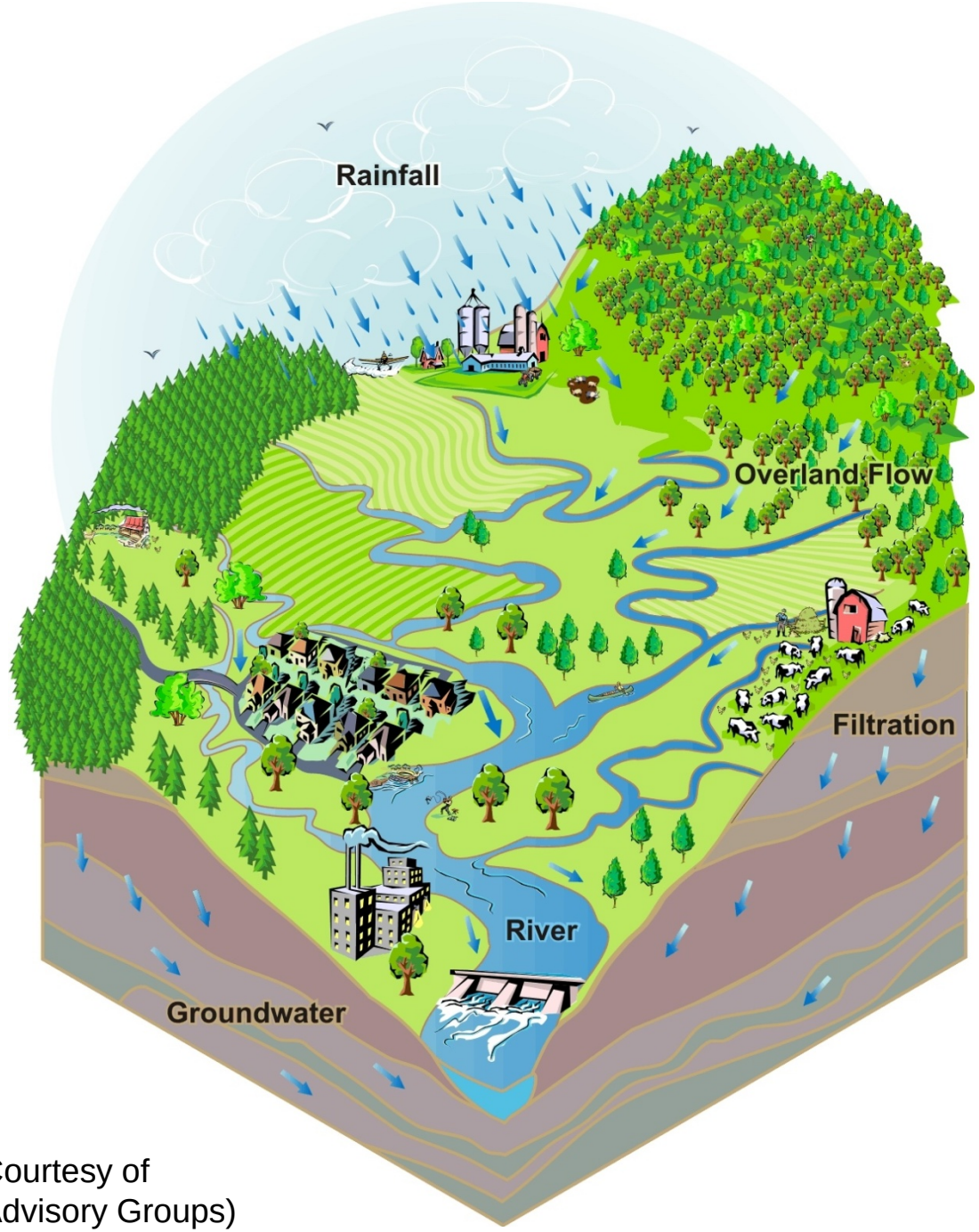
July 11, 1937 - Park at Nueces Bay Causeway

Nueces County 2015

Mar del Plata, Argentina

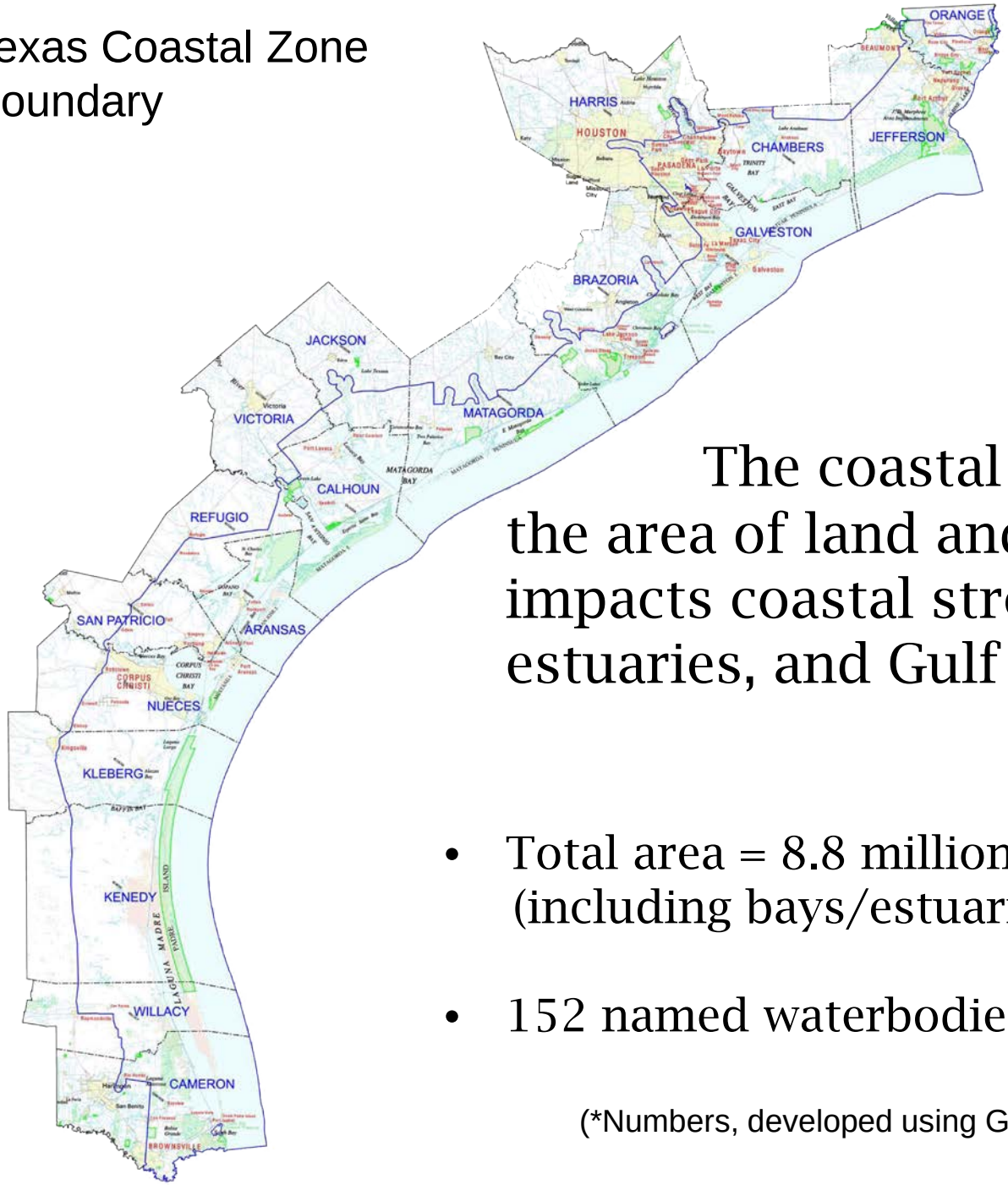
(https://hdemiurge.wordpress.com)

How to study watershed function and “control” NPS pollution in the Coastal Zone?



(Watershed Diagram Courtesy of Arkansas Watershed Advisory Groups)

Texas Coastal Zone Boundary

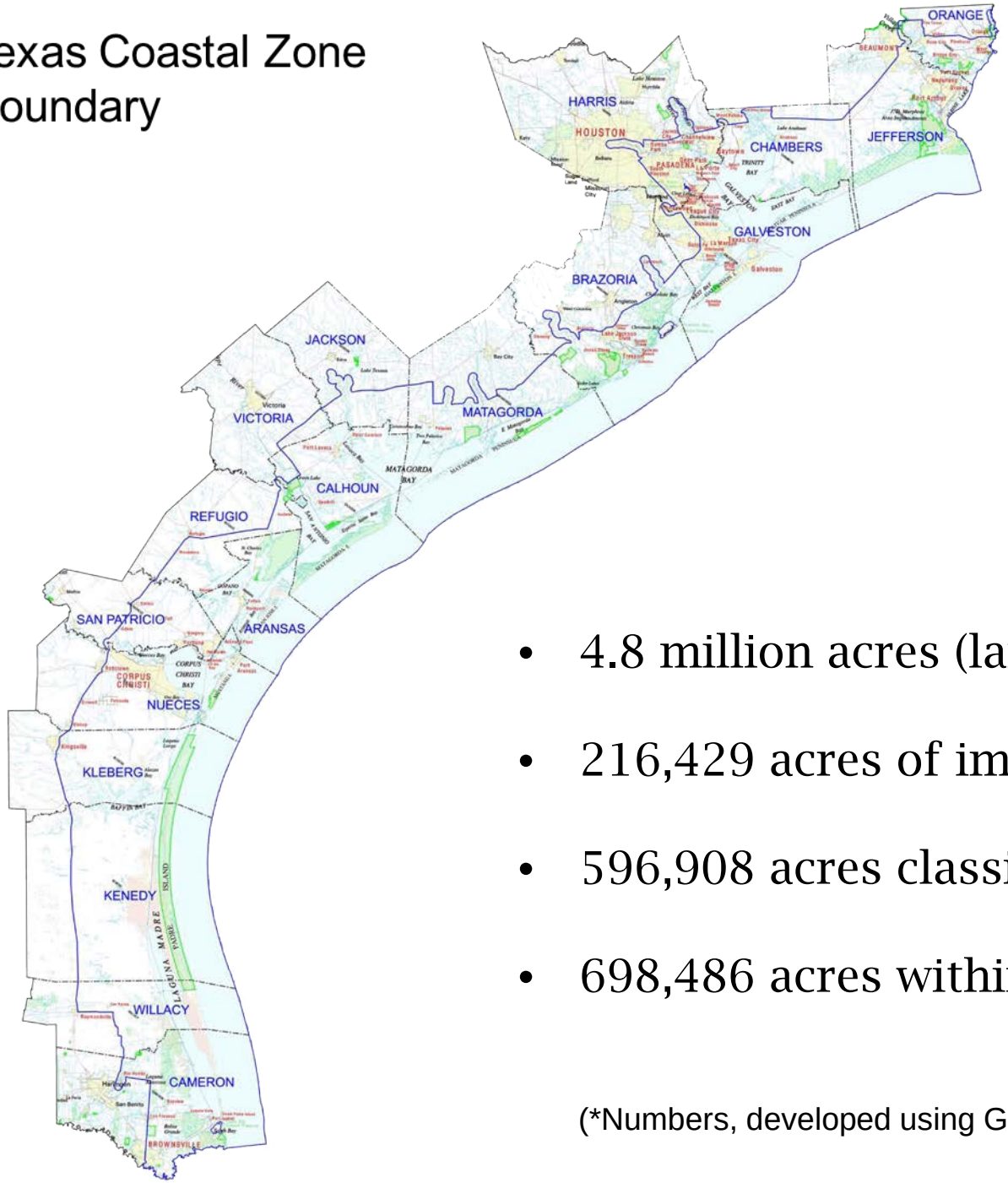


The coastal zone encompasses the area of land and water that directly impacts coastal streams, bays, estuaries, and Gulf of Mexico.

- Total area = 8.8 million acres* (including bays/estuaries/Gulf)
- 152 named waterbodies

(*Numbers, developed using GIS, are draft and under review.)

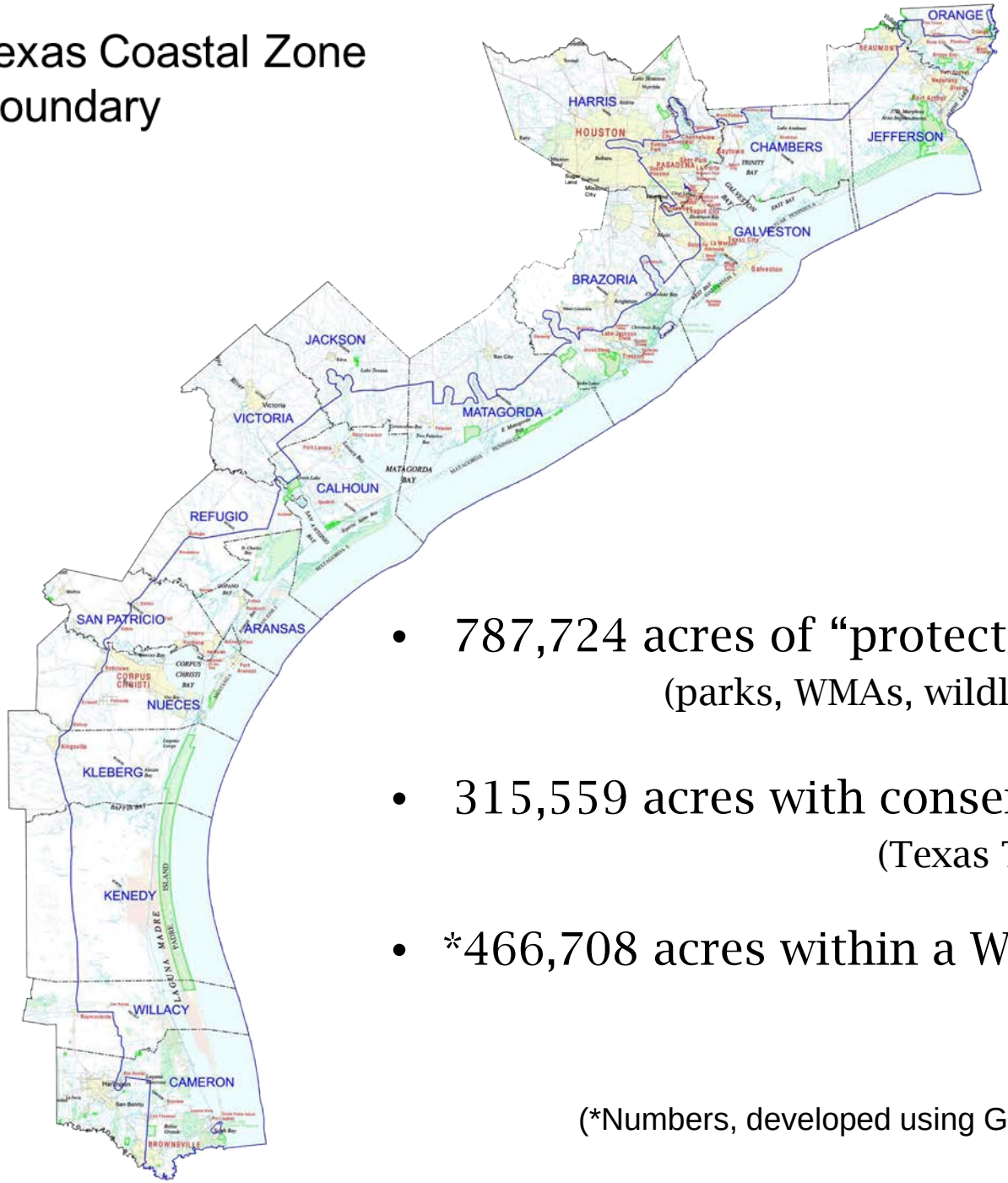
Texas Coastal Zone Boundary



- 4.8 million acres (land)
- 216,429 acres of impervious cover
- 596,908 acres classified as “urban”
- 698,486 acres within MS4 areas

(*Numbers, developed using GIS, are draft and under review.)

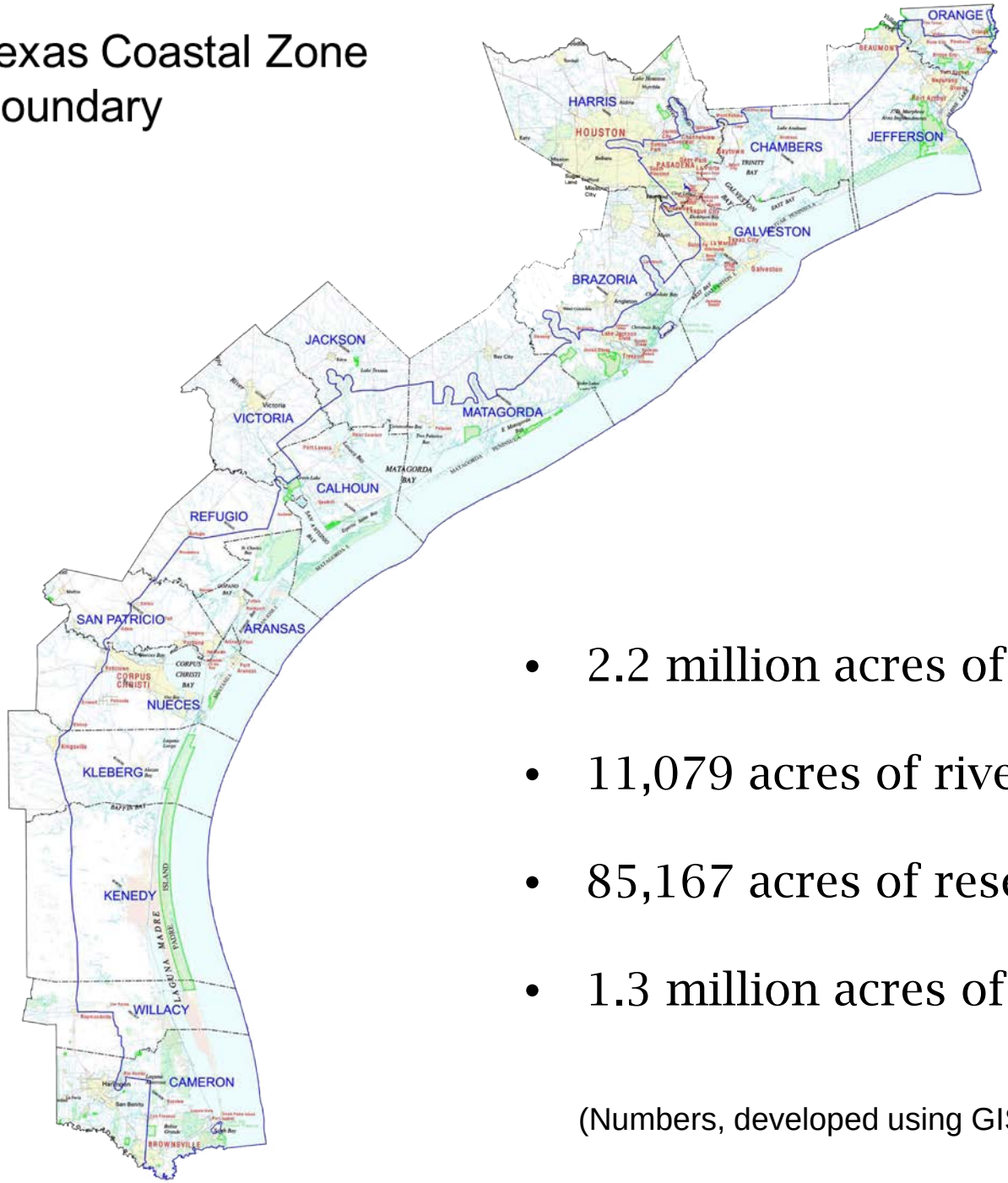
Texas Coastal Zone Boundary



- 787,724 acres of “protected” lands
  (parks, WMAs, wildlife refuges)
- 315,559 acres with conservation easements
  (Texas Trust for Public Lands)
- *466,708 acres within a Watershed Protection Plan

(*Numbers, developed using GIS, are draft and under review.)

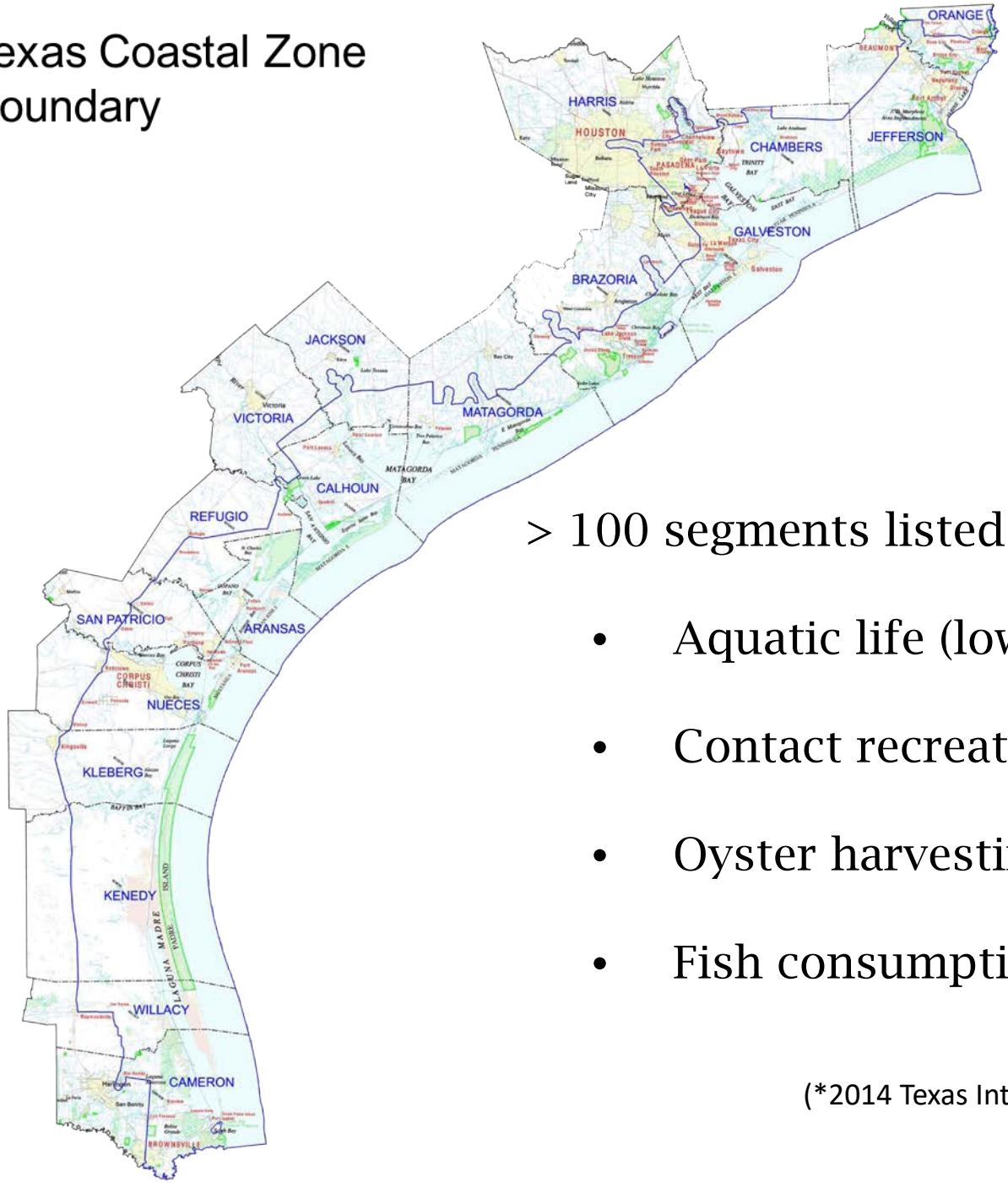
Texas Coastal Zone Boundary



- 2.2 million acres of bays/estuaries
- 11,079 acres of rivers, streams/creeks
- 85,167 acres of reservoirs/ponds
- 1.3 million acres of wetlands

(Numbers, developed using GIS, are draft and under review.)

Texas Coastal Zone Boundary



> 100 segments listed as “impaired”*

- Aquatic life (low DO)
- Contact recreation (E.coli, Enterococci)
- Oyster harvesting
- Fish consumption

(*2014 Texas Integrated Report of Surface Water Quality)

Coastal Zone Act Reauthorization Amendments (CZARA or § 6217)

1990 - Congress enacted "Protecting Coastal Waters" (16 U.S.C. §1455b, § 6217)

The purpose is " …to develop and implement management measures for controlling nonpoint source pollution to restore and protect coastal waters, working in close conjunction with other State and local authorities."

Management Measures are intervention and mitigation actions and policies that collectively work to “control” NPS pollution.

The purpose is " …to develop and implement management measures for controlling nonpoint source pollution to restore and protect coastal waters, working in close conjunction with other State and local authorities."

Coastal Zone Act Reauthorization Amendments (CZARA or § 6217)

States with an approved coastal management program must develop, submit, and implement a program to EPA and NOAA for approval.

Texas must achieve full compliance by June 2019 or receive 30% reductions to Texas CWA § 319(h) and Texas Coastal Management Program 306/306A annual funding allocations.

CZARA is meant to strengthen links between coastal zone management and water quality programs and to enhance State and local efforts to manage land use activities that degrade coastal waters and habitats.

Legislation indicates that state coastal zone and water quality agencies are to have co-equal roles, analogous to the sharing of responsibility between NOAA and EPA at the Federal level.

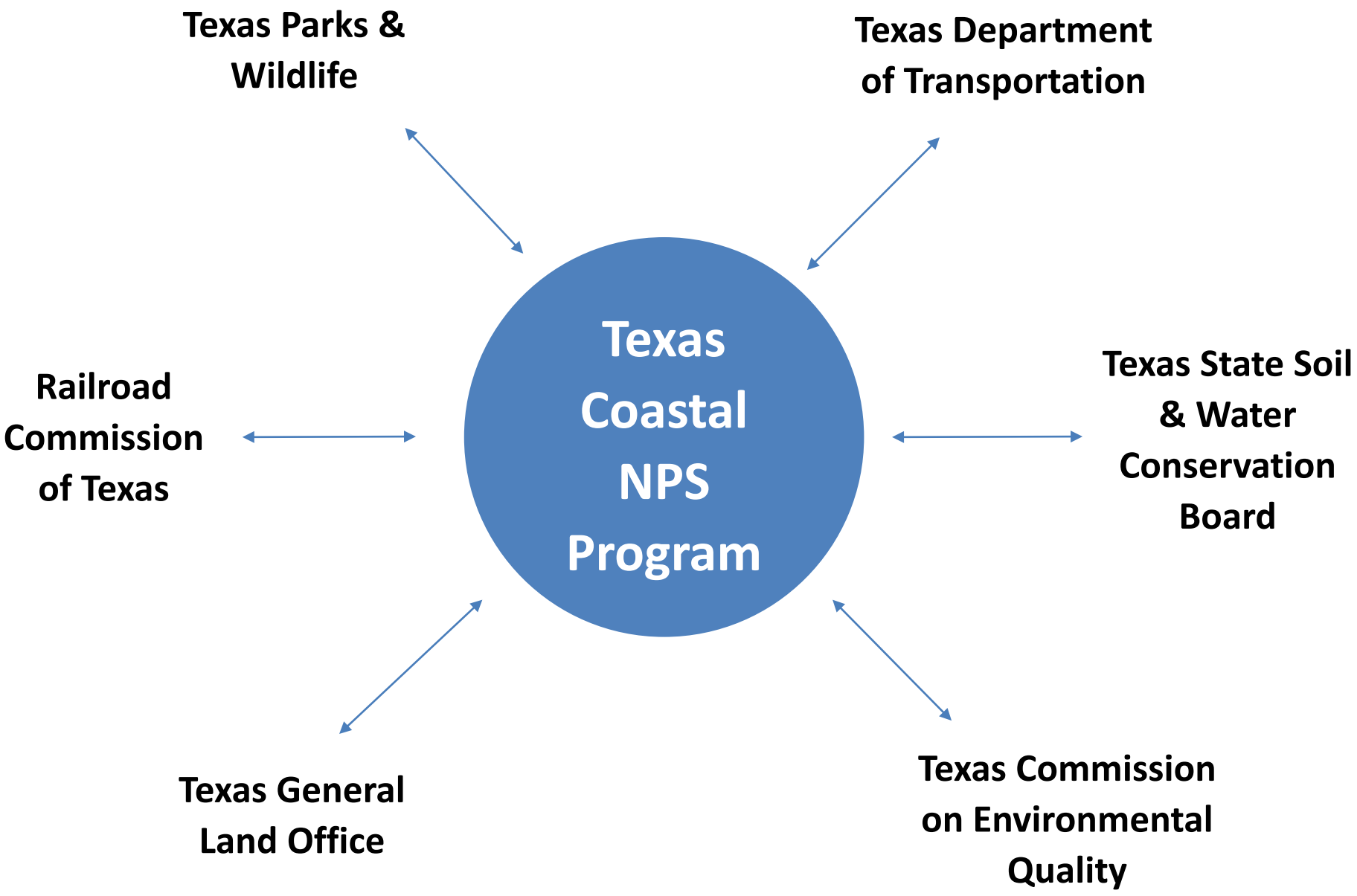
In other words, let's work together!

CZARA STATUS:

22 STATES AND 5 TERRITORIES HAVE FULLY APPROVED PROGRAMS

TEXAS COASTAL NPS POLLUTION CONTROL PROGRAM IS CONDITIONALLY APPROVED

11 STATES ARE SEEKING FULL APPROVAL


Texas Parks & Wildlife
Texas Department of Transportation
Railroad Commission of Texas
Texas Coastal NPS Program
Texas State Soil & Water Conservation Board
Texas General Land Office
Texas Commission on Environmental Quality

TPWD

- Reviews § 404 & 401 permits, wetland certifications
- Enhance, conserve, create wetlands
- Enforces boat sewage rules
- Technical/financial assistance

TXDOT

- Manage & implement NPS controls for construction & maintenance of state roads, highways, bridges
- Technical assistance

RRC

- Lead agency for § 401 water quality certifications for oil/gas exploration

Texas Coastal NPS Program

- **Issues coordination**
- **Tracking & reporting**
- **Data review & coordination**

TSSWCB

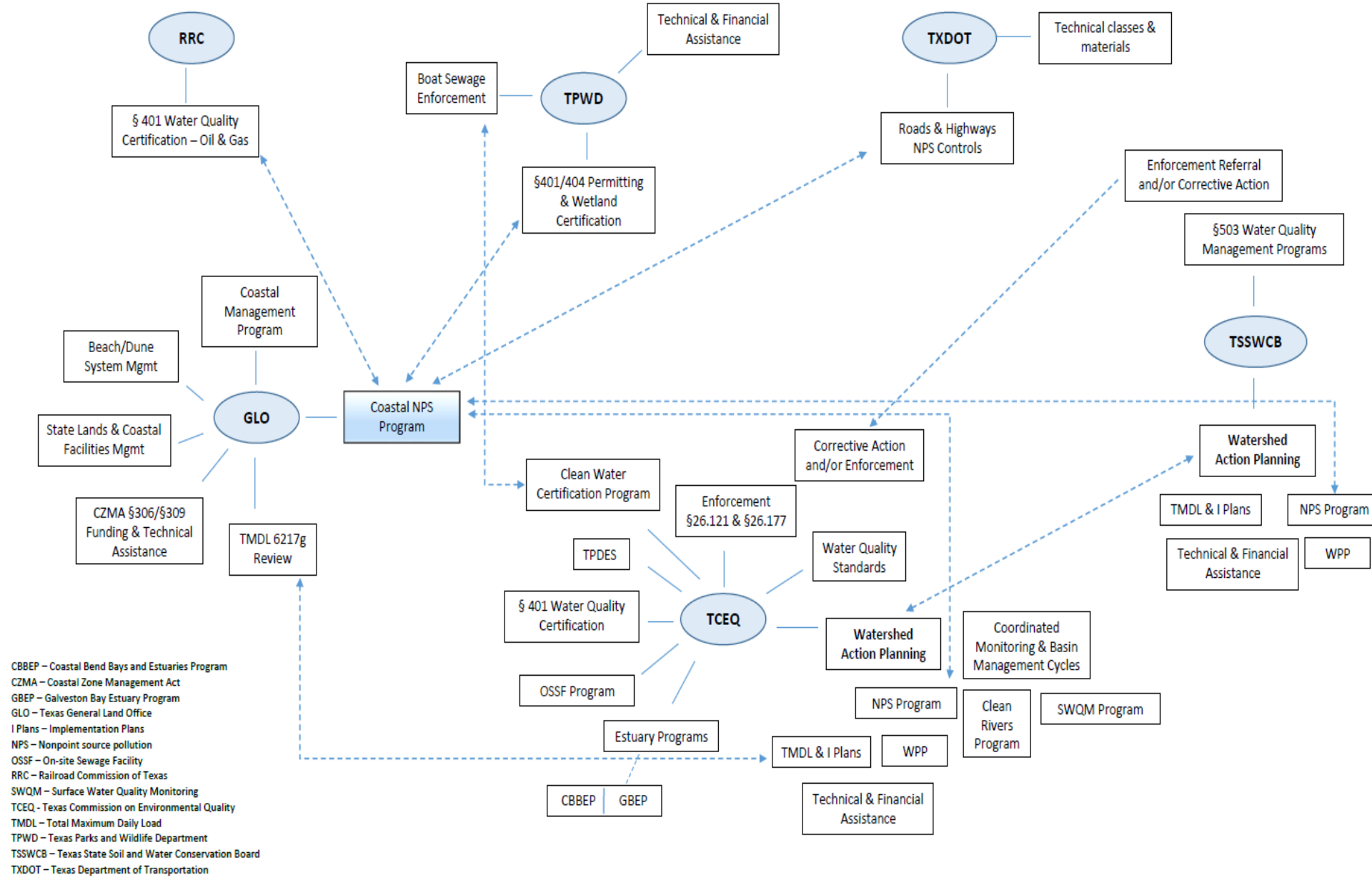
- Manages agricultural NPS
- Develops, certifies, WQMPs
- WAP, TMDL, WPP development
- Technical/financial assistance

GLO

- Lead CMP agency
- Administers Coastal NPS Program
- Manages beach/dune systems
- TMDL review for § 6217g
- Technical/financial assistance

TCEQ

- Manages urban & other non-agricultural NPS
- WAP, TMDL, WPP development
- Enforcement
- Technical/financial assistance



CBBEP – Coastal Bend Bays and Estuaries Program
CZMA – Coastal Zone Management Act
GBEP – Galveston Bay Estuary Program
GLO – Texas General Land Office
I Plans – Implementation Plans
NPS – Nonpoint source pollution
OSSF – On-site Sewage Facility
RRC – Railroad Commission of Texas
SWQM – Surface Water Quality Monitoring
TCEQ - Texas Commission on Environmental Quality
TMDL – Total Maximum Daily Load
TPWD – Texas Parks and Wildlife Department
TSSWCB – Texas State Soil and Water Conservation Board
TXDOT – Texas Department of Transportation

Management Measures:

Agriculture

- Erosion/sediment control
- CAFO
- Nutrient management
- Pesticide management
- Livestock grazing

APPROVED

Management Measures:

Forestry

- Pre-harvest planning
- Streamside management
- Road management
- Forest regeneration
- Forest chemical management

APPROVED

Management Measures:

Marinas & Recreational Boating

Hydro-modification

Wetlands, riparian areas

APPROVED

Management Measures:

Urban - Roads, Highways, Bridges (RHB)

TXDOT RHB APPROVED

Off-system (non-TXDOT) RHB, NOT APPROVED

Management Measures:

Urban - On-site Wastewater Disposal

- Inspections occurring at a frequency to ascertain failure
- Upgrade systems where nitrogen discharges significantly impair water bodies

NOT APPROVED

Management Measures:

Urban

New development

Existing development

Site development

Watershed protection

NOT APPROVED

Examples of § 6217 EPA and NOAA guidance for “urban” areas:

- Reduce peak storm flows after construction (to pre-construction levels)
- Ensure that post-construction total suspended solids (TSS) levels are similar to pre-development levels
- Preserve areas that provide water quality benefits
- Limit impervious cover, except where necessary
- Limit land disturbance activities
- Protect environmentally sensitive areas

Planning and coordinating…

With over 4.8 million acres in the Coastal Zone, strategy and focus are key:

Utilizing population change rates and average changes in housing units per year, Texas' strategy is to prioritize efforts in areas that are experiencing land use change (pop growth + housing unit change).

There are 88 municipalities in the Coastal Zone:

- 48 MS4 (cities with NPS controls in place)
- 40 non MS4 (target areas)

- 101 small unincorporated communities

Population changes 1990 – 2010 (i.e. Growing)
and
Average housing unit change/year (i.e. > 15/yr)

Focus on areas experiencing significant land use change:

Jamaica Beach
Beach City
Fulton
Port Lavaca
Aransas Pass
Port Aransas
Laguna Vista
Ingleside
Rockport
South Padre Island
Port Isabel

Potential Strategies:

- Voluntary, non-regulatory, incentives with grants and technical assistance
- Utilize existing programs and/or make adjustments to these programs
- Develop technical guidance materials and provide assistance when requested
- Engage towns and share information about model ordinances; BMPs; LID applications; green infrastructure
- Share information about technical training opportunities/host conference
- Communicate grant opportunities that can provide assistance
- Collaborate and form partnerships

Oregon (*carrots and sticks)*

In 2015:

- NOAA withheld $598,000 of CZMA §306 grant funds
- EPA withheld $631,500 of CWA §319 grant funds

In 2016:

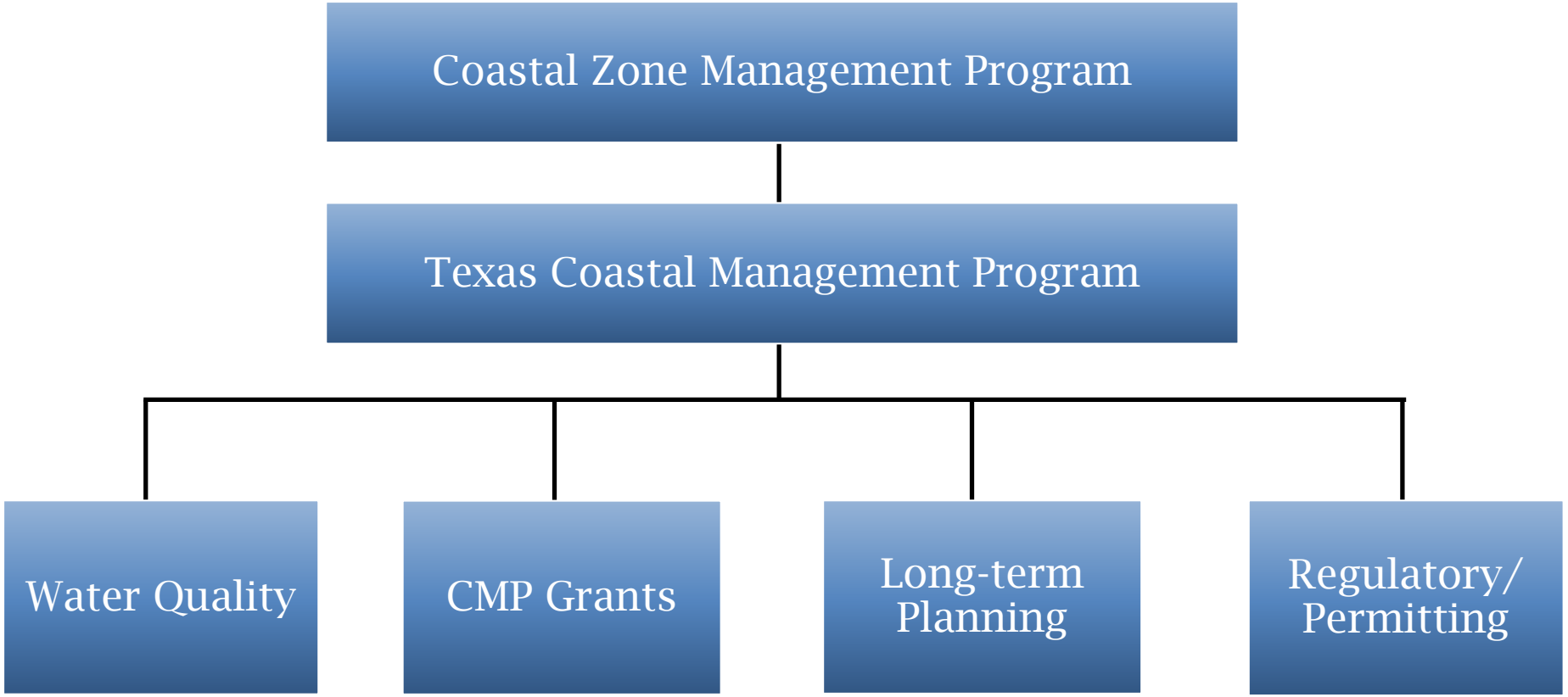
- NOAA withheld $637,500 of CZMA §306 grant funds
- EPA withheld $435,540 of CWA §319 grant funds

$2.3M and counting…plus matching funds and loss of the associated projects delivering important services to the coast.

Numerous funding opportunities:

- RESTORE/NRDA
- CWA §319 grant funds (NPS Grant Program)
- CZMA §306 grant funds (CMP Grant Program)
- TWDB Clean Water State Revolving Fund
  - wastewater treatment facilities
  - collection systems
  - stormwater mitigation
  - nonpoint source pollution control
  - estuary management project

Texas Coastal Management Program


Coastal Zone Management Program
Texas Coastal Management Program
Water Quality
CMP Grants
Long-term Planning
Regulatory/ Permitting

CMP Grants Program

- Texas receives approximately $2 million a year from NOAA

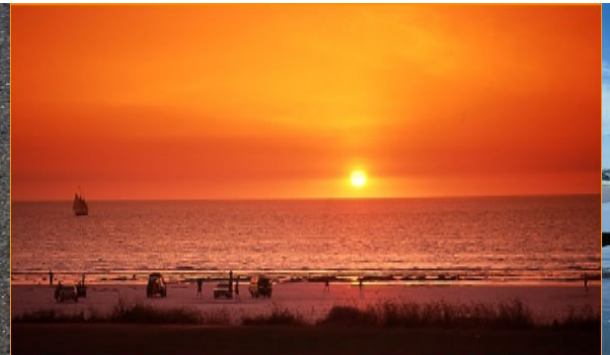
- 90% of the funds are passed through to local governments and entities to address environmental needs and promote sustainable economic development along the coast

Eligible CMP Grant Applicants

- Incorporated cities
- County governments
- State agencies
- Public universities
- Regional governments
- Galveston Bay Estuary Program
- Coastal Bend Bays and Estuary Program
- Nonprofit organizations
  - Must be a registered §501(C)(3)
  - Must be nominated by one of the other eligible applicants on the list

CMP Funding Categories

- Coastal Natural Hazards Response
- Critical Areas Enhancement
- Public Access
- Water Quality and Sediment Management Improvement
- Waterfront Revitalization and Ecotourism Development
- Permit Streamlining/Assistance, Governmental Coordination and Local Government Planning Assistance



Preferred CMP Project Funding Ranges

- CMP may contribute up to $100,000 for small-scale projects and up to $400,000 for large-scale projects
- Amounts do not include match requirements

Match Requirements

- Federal funds may not be used as match
- 60% CMP funding : 40% matching funds
- Match is based on total project cost

Example:

CMP: $60,000
\+ Match: $40,000
Total: $100,000

Key Dates

May 2017	· Workshops held along the coast
June 21, 2017	· Pre-proposal deadline
August 9, 2017	· Comment letters mailed
September 20, 2017	· Final application deadline
December 2017	· Review team meeting
January 2018	· Commissioner decision
April 2018	· GLO submits projects to NOAA
October 2018	· GLO receives approval from NOAA

CMP Grants Contacts

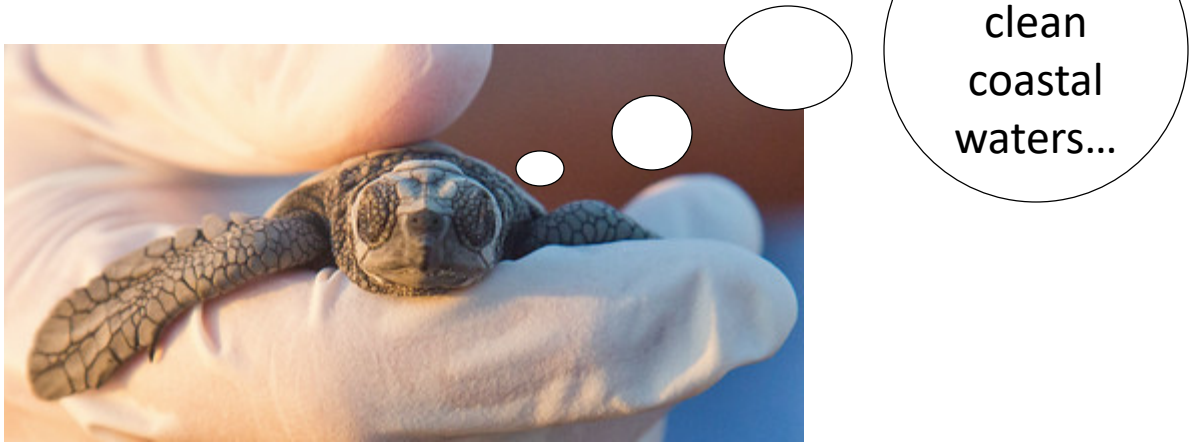
Carly Vaughn
Team Leader – Federal Grant Programs
Carly.vaughn@glo.texas.gov
(512) 463-3550

Julie McEntire
Project Manager
Julie.mcentire@glo.texas.gov
(512) 475-0216

- Close coordination with state and federal agencies
- Non-regulatory, incentive based programs
- Opportunities to adapt and improve; partner up
- Flexible program, scaled based available budget
- Improve and restore coastal water quality

Visit txcoasts.com to learn about beach access and amenities

www.glo.texas.gov



Jason Pinchback
Texas General Land Office
jason.pinchback@glo.texas.gov